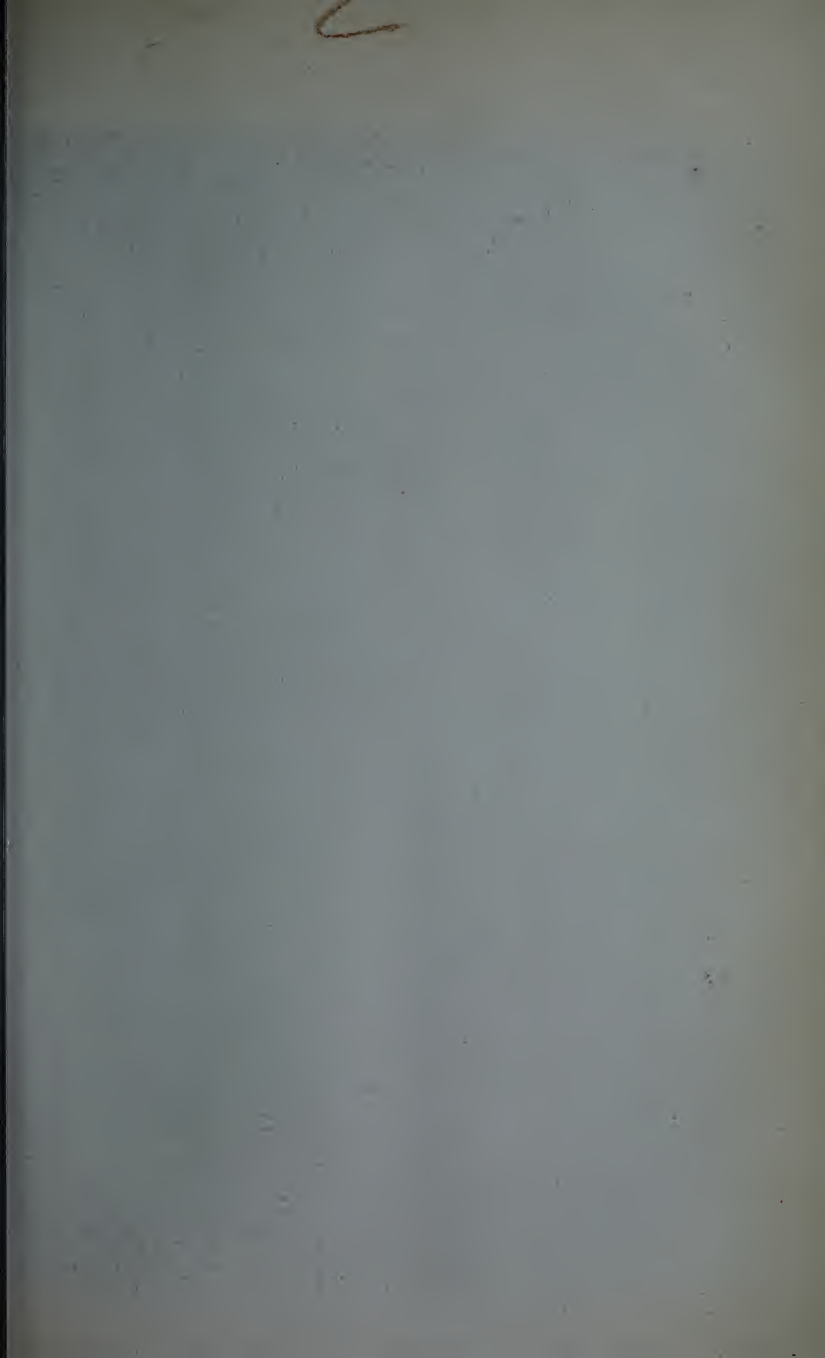




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ON
SOME RECENT ADVANCES
IN THE
SURGERY OF THE URINARY ORGANS.

BEING THE
ADDRESS ON SURGERY
DELIVERED BEFORE THE
FIFTY-FIRST ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION,
AT LIVERPOOL,
ON AUGUST 1st, 1883.



BY
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^c LONDON:
J. & A. CHURCHILL, NEW BURLINGTON STREET.

1883.



MR. PRESIDENT AND GENTLEMEN,

THE honour of addressing you on this occasion having been conferred upon me by your Council, I cannot enter upon the task that is before me without expressing my consciousness of inability to accomplish it in the manner I would desire. This sense of insufficiency is by no means lessened when I look at the names of those who have preceded me; when I remember the interest with which I, in common with you, listened to their words; and when I consider how completely abreast this great Association is kept by means of its journal with everything relating to the progress of surgery. On the other hand, long connection with this Association gives me the assurance of having to address a sympathising audience, one disposed to overlook defects in any honest endeavour to set forth the advancements made in our art.

Surgery, I need hardly tell you, has long been cultivated in the new city which has now the honour of receiving you. The hospitals of Liverpool and their records show that the same ardour prevails here as elsewhere, both at home and abroad, whilst its position as a school of surgery indicates that it has entered not unsuccessfully into honourable rivalry with its competitors. But it may be asked, especially by those visiting Liverpool for the first

time, Are there no traditions here? Are there no footprints of those who have left behind them works which place us in their debt, and which will render their names famous wherever and as long as surgery is known? It seems to me that one advantage connected with the itinerant character of our meetings is, that places suggest references to local celebrities of the past whose works cannot be thought over without advantage. In our desire to push forward, we sometimes forget to look back, and to reflect upon that which has been achieved and how it was brought about. Such reflections cannot fail to be of service in reminding us that surgery is not entirely of modern creation, that we have a few distant relations whose connection it is desirable to keep up, and that there still remain links which associate us with the great ones of the past. These links connect us, not here alone, but everywhere, with the names of Park and Alanson, to whose work I now wish for a moment to refer.

Henry Park was surgeon to the Royal Infirmary from 1767 to 1798. I cannot do better than quote a passage which our local historian, Sir James Picton, has selected* as paying a deserved tribute to his memory:—"In the latter portion of the last century, when a vigorous flash of originality seemed to light up the annals of surgery, Park, of the Liverpool Infirmary, may be said to have accomplished the first act of conservative surgery. His patient being a sailor, to whom the loss of a foot and leg

* *Edinburgh Review*, October, 1872.

would have been tantamount to the loss of his means of getting bread, determined him to make the experiment of simply excising the diseased part, the knee-joint, and retaining the foot and leg. This he did so successfully that, to use his own words, the patient some years after the operation 'made several voyages to sea, in which he was able to go aloft with considerable agility, and to perform all the duties of a seaman; that he was twice shipwrecked, and suffered great hardship without feeling any further complaint in that limb.' This was a crucial test of success, that should have stamped the operation as one of the greatest surgical triumphs of the time; but, like so many other great strides taken in that age of extreme vivication, it was in advance of its fellows, and was destined to be arrested for the better part of another half century."

I need not on this occasion dwell on the claims that excision of the knee-joint has to be regarded as one of the recognised operations in surgery. Though there may be differences of opinion in reference to the circumstances indicating it, there can be no doubt that it will for ever remain as a brilliant memorial of the surgeon whose name is associated with it.

Of Mr. Alanson, Park's colleague, and surgeon to the Royal Infirmary from 1770 to 1794—whose work has been aptly referred to by Mr. Sampson Gamgee* as "one of those forgotten surgical classics which I would venture strongly to impress on the attention of my younger brethren"—I will speak

* *Transactions International Medical Congress*, 1881, vol. ii., p. 352.

in the following passage from the Presidential Address of the late Dr. Vose, delivered on the last occasion this Association met in Liverpool:—"To Mr. Alanson, formerly a surgeon to our Royal Infirmary, we are indebted for many important suggestions, made at a time when the science of hygiene was but little regarded anywhere. His remarks upon the ventilation of hospitals, the use of iron bedsteads, the necessity of frequent white-washing, and the establishment of sanatoria in the pure air of the country for convalescent patients, testify to the correctness of his professional judgment and to his zeal for the welfare of his fellow-creatures. It is by his treatise upon amputation, however, that the memory of this gentleman, as an original thinker in surgery, has the strongest claims to our gratitude and regard. He tells us that among upwards of forty amputations performed upon the old system which had come under his notice, ten died of tetanus, two of bleeding, three from mortification, four from exhausting suppuration; while eighteen experienced hæmorrhage, and nearly all had excessive fever. Most of the patients suffered from exfoliation of bone, conical stumps, or wounds that would not heal. After the adoption of his improved method of procedure he had the satisfaction of being able to announce that out of upwards of thirty amputations, taken indiscriminately, which were performed at the Infirmary, not one died, and none had secondary hæmorrhage, while in a month after operation the wound was either altogether or as nearly as possible healed in all the cases."

As is well known, in Alanson's method of amputating, provision was made for the covering in of the bone, after its section, by the integuments.

Such, then, are illustrations of the useful work which was being done by surgeons in this comparatively modern city about one hundred years ago. Gratitude for improvements, the value of which is still fully and freely acknowledged, justifies the foregoing references to the work of these distinguished men.

The selection of material for presenting to you to-day has occasioned me no little anxiety. Following immediately upon an address which will for ever render our jubilee year memorable—an address in which justice was done by the distinguished representative of surgery from Ireland to the great subject of surgical progress generally, whilst its prominent features were forcibly brought out, I may well hesitate where to tread.

In considering the position of surgery as detailed in Mr. Stokes' admirable address, the thought naturally occurs that its diffusion is as remarkable as its progress. Compare, for example, the condition of surgery prior to the existence of our Association with its position as set forth in the columns of our own Journal, or in those of the other great representative of medical opinion in this country—the *Lancet*. In the former period departures from the ordinary routine of surgical procedure were confined to a few hands, and the benefits resulting from improved methods of treatment were shared in by a very limited number.

Now, no sooner is a method of treatment or an operation proved to be efficient, than it is taken up and practised wherever scientific surgery can reach ; the peer is no better off than the peasant, and the cottage hospital rivals in its successes those obtained in more palatial edifices.

So beneficently catholic is our profession that it hails with the greatest satisfaction, not only the discovery of new means of relief, but the adaptation of others to a form which permits of their more general adoption and usefulness ; whilst, on the other hand, it regards with suspicion all methods of treatment which unnecessarily restrict or conceal that which was intended for the common good.

I propose to occupy the remainder of the time at my disposal by a reference to some of the more recent advances and work in connection with the surgery of the urinary organs.

Commencing with the kidneys, we are at once struck with what surgery is doing for them. Until quite recently the diseases of these organs were regarded as belonging almost exclusively to the province of the physician, and probably they would have remained so had preventive medicine obtained fuller development.

A more extended acquaintance with the pathology of the kidney has brought to light conditions in which the work of the physician requires to be supplemented by that of the surgeon. Pain arising from an undue mobility of the organ, tumours, deposits, hæmorrhages, and collections of fluid within it—all these

morbid states are now recognised as capable of relief or cure by fixing, opening, or extirpating the abnormal or disordered organ; whilst numerous illustrations have already been afforded of the successful removal of stones from positions where they must have ultimately led to the disorganisation of the kidney in which they had become impacted.

It would be premature at present to endeavour to formulate anything like precise rules in reference to the application of the various operations on the kidney to which I have briefly referred; they are at present comparatively new to us, and we must occupy ourselves in cautiously moving in the direction they indicate, and in collecting experience rather than in drawing conclusions other than very general ones.

Amongst many valuable contributions to the literature of this subject which have appeared, I would include one by Dr. R. P. Harris,*† of Philadelphia,

* *American Journal of the Medical Sciences*, July, 1882.

† "Quénn * reviews the one hundred cases collected by Harris, and adds to them two French cases.

"Of these one hundred and two cases, fifty recovered, forty-six died, and six remained under treatment when reported.

"Of the ninety-six completed cases, forty-six were operated upon by abdominal incision, with twenty-three recoveries; fifty were operated upon by the lumbar incision, with twenty-seven recoveries.

"Quénn concludes from his analysis of the cases that the abdominal incision is to be preferred for large tumours, and for displaced and movable kidneys; and that in other cases the lumbar incision is the best. Further, that the lumbar incision should always be used in doubtful cases.

"It is an interesting physiological and therapeutical observation that Dr. Polk's patient (where the only kidney was removed), under the liberal use of pilocarpine, could survive for eleven days without a vestige of renal excretion."—*Recent Progress in Surgery*, by Dr. A. T. Cabot. *Boston Medical and Surgical Journal*, June 28, 1883.

which contains an analysis of one hundred cases of nephrectomy. From this, as well as other communications which have more recently been published in this country, we may draw at least three conclusions of value, so far as the operation of extirpation of the kidney is concerned. These are—

1st.—That nephrectomy has been the means of saving many lives under circumstances where no other method of treatment was likely to be of service ;

2nd.—That this operation has been practised in cases where the probability of a successful termination appeared to be very remote ; and

3rd.—That a method of effecting the removal of the organ different from that which was selected, or a procedure less heroic, might, in some instances, have tended to increase the chances of success.

In these directions then—in selecting cases for operation, in rejecting others as unsuitable, and in determining relatively to the case in question the best method of procedure—I take it that good work has yet to be done.

It appears to me that among the difficulties we have to contend with in the application of nephrectomy, two stand out prominently: (1) the kidney it is proposed to remove may be the only one; (2) the opposite organ may be similarly affected, though in a less degree, yet sufficient to interfere with those compensatory changes being carried out which are essential when one excretory organ has to supply a lack of service on the part of another. The literature of this

subject will already be found to illustrate the class of difficulties to which I am referring.

The lesser proceedings, which include the exploration of the kidney, and the removal of calculi and of pent-up fluid, are necessarily attended with a diminished risk, and have already proved of much value.

In undertaking a new class of operations, we must bear in mind the past history of many methods of treatment, now justly regarded as successes, but which, severally, had a very unpromising commencement. Look at the unsatisfactory position held by ovariectomy only within a period represented by the memory of the majority of us here present to-day. Yet the high dignity to which it has been raised in the rank of surgical operations, by the skill and enterprise of Sir Spencer Wells, Keith, and others, is now frankly and fully admitted by the whole medical world.

In the treatment of certain affections of the bladder, we shall find that much progress has been made, and that the way has recently been opened for prosecuting other important advances. These will be chiefly illustrated by the modern practice of lithotripsy and the treatment of tumours and intracystic growths.

Till a few years since the removal of stone from the bladder by crushing had been conducted on the lines laid down by Civiale some half-century ago. Though this method of proceeding has included amongst its advocates, past and present, surgeons of eminence, it cannot be said that, as then practised, it

was either gaining ground or confidence. Indeed, I think I may say there was an increasing tendency to limit its application and to substitute lithotomy in all cases but those of the simplest kind. The mortality consequent upon the retention of broken calculi within the bladder was sufficient to induce all but the most ardent admirers of lithotripsy to hesitate to give it the preference over a proceeding in which, whatever might be the risks, there was at least a guarantee that the whole of the stone had been removed.

Whilst the surgical mind was thus to some extent in doubt as to the limits to which the crushing operation of stone might safely be pushed, two important communications followed rapidly upon each other. That both of them should have emanated from America merely indicates that the desire to advance the art of Surgery is not limited to the old country, but is a natural outcome of advancing civilisation and humanity.

The first of these papers was by Dr. Otis, of New York, who demonstrated beyond all reasonable doubt, and in a manner which had not previously been attempted, that the male urethra was capable of safely receiving far larger instruments than were generally employed. Following upon this, and probably influencing the views of the author, came Dr. Bigelow's paper on the removal of stone from the bladder by crushing and withdrawing it at a single operation; the latter communication clearly showing that the bladder was tolerant of much more

prolonged manipulation than had previously been believed.

It appears to me that the originality of Bigelow in no way detracted from the importance of the work that had previously been done in this country and elsewhere, or compromised the acumen of those who were most interested in the progress of this department of surgery.

That Bigelow's method of procedure is a great step in advance—that it has extended the limits of lithotrity and curtailed those of lithotomy—there cannot be the least doubt. But to suppose that it is capable of universal application, or ever likely to be so, is as unreasonable as to suppose that the art of surgery in no way differs from the art of administering Holloway's pills. But does the lithotrity of to-day represent the finality of its perfection? I trow not. When we consider what chemistry, electricity, and other agencies are doing—how physical force is in many directions being supplanted by other means—can we doubt that there are yet improvements in store in the methods of effecting the destruction of concretions within the body? Nay, are there not already significant indications that such improvements are nigh at hand? Is it likely that the fruit of the labours of Garrod, of William Roberts, of Ord, of Vandyke Carter, and others has been already gathered? May not a more perfect knowledge of the physical and physiological laws which regulate the production of concretions in the human body result in enabling us not only more surely to prevent them, but to destroy them?

Considering the great activity that has within recent years been shown in demonstrating the preventable nature of many diseases, and the energy that has been displayed in grappling with them, it seems remarkable that no adequate steps should have been taken to ameliorate the hygienic condition of certain parts of this country where the amount of calculous disease is excessive and the inhabitants consequently are exposed to an inordinate risk of contracting it. The admirable address by Mr. Cadge before our Association at Norwich, in 1874, furnishes abundant data for the further prosecution of enquiries of this kind. I cannot help thinking that if it could be shown to be even probable that the dogs, cats, rabbits, or frogs of the aforesaid districts were inconvenienced in a like manner with their owners, the matter would long ago have been forced upon our legislature with all the exaggeration that usually characterises agitations of this kind.

Though surgery has invariably shown itself equal to the circumstances and emergencies with which it has been called to cope—though the prevalence of stone in a district has always been compensated for, as far as this is possible, by the appearance of those most competent to deal with it—these are no reasons why such conditions should be permitted to continue. Had time or occasion offered, I think it would not be difficult to prove that circumstances, either fortuitous or by design, have been found to exercise a marked influence in diminishing or increasing, in certain places, the tendency to calculous disease.

One word in reference to lithotomy before I leave the subject of stone. There is no great operation in surgery, I believe, which furnishes more successful results than this. Taking the experience of the two hospitals in this city with which I have been associated, I find there have been within my recollection 102 cases of lithotomy in persons of all ages, but chiefly in children, and operated on either by my colleagues or by myself. In only five of these cases could I ascertain that a fatal result followed. My late esteemed friend, and our former associate, Mr. Southam, speaking of his own experience of lithotomy at Manchester, informed me that he had operated 120 times, and could only recall one death. In the great majority of the Liverpool cases the stones were not exceedingly large, and I have no doubt that many of them might have been removed by lithotrity. I question, however, whether the small mortality these figures indicate would thereby have been still further diminished, even if the calculation were made on a basis corresponding with the most successful statistics in lithotrity that have hitherto been obtained.

Passing to tumours of the bladder, it is not surprising, seeing what has been done for tumours of the ovaries, uterus, and intestines, by Sir Spencer Wells, Keith, Lawson Tait, Treves, and others, that growths occupying the interior of the bladder should have received special attention. Though the literature relating to this subject has been of a somewhat fragmentary character, such compilations as Stein's recent work, *A Study of Tumours of the Bladder*, con-

clusively show that some gratifying results have already been attained in both sexes. The great distress connected with this class of growths, the uncertainty as to the precise nature of the affection, in the first instance, and subsequently the kind of symptoms that accompany it, have naturally suggested the employment of means having for their object their removal by operation.

Sir Henry Thompson has done good service in giving prominence to the employment of digital exploration of the bladder, and in furnishing illustrations of the great advantage that this proceeding is capable of affording in suitable cases.

From a consideration of some of the extremely valuable records which have been published by various surgeons, where the bladder has been opened for the removal of tumours, it appears to me that it might have been better had the operative proceeding terminated with the detection and exploration of the growth by the finger. The chief dangers which experience has shown to be liable to attend the performance of this class of operations are:—

1. The chance of rupturing a bladder the coats of which have been rendered less resisting than natural.

2. The provocation of a hæmorrhage which it has been found difficult to control.

3. An incomplete removal of the growth.

On the other hand, an examination of many tumours of this kind, of which villous growths or tufts furnish the best examples, shows that there is

nothing in their connections or relations which need necessarily interfere with their complete removal. Precise information as to the presence and attachments of these growths we may now obtain with comparative safety. Whether their removal is to follow upon their discovery will be matter for further consideration.

With the view of extending our knowledge of these growths, a committee of this Association is occupied in collecting information relating to them. The report of this committee will, I hope, form the basis of an interesting discussion in the pathological section which will be opened by Mr. Paul.

I now come to speak of the prostate, and I shall do so in reference to the part it takes in obstructing micturition, for the reason that it is this symptom which in some form or other brings the patient under our care.

It appears to me that enlargement of the prostate is specially interesting to us in relation to its earliest and to its most advanced forms, and it is to these points that I shall more directly refer.

If we take the obstructive disorders of the urinary apparatus, and inquire what feature of them is most detrimental to the associated parts, the answer undoubtedly will be, The misdirection of the muscular force that is thereby entailed. How can we explain the structural alterations which take place behind the obstructed point, and which manifest themselves in different ways, except as the results of urinary retention and retrograding pressure? How frequently do

we find, in cases of stricture or enlarged prostate, that the whole of the apparatus behind the primary constriction consists of little else than dilated saccules and tubes. Is not this distinct evidence of back-pressure going on, though it may be imperceptible, from the moment that impediment arises to the escape of urine from the bladder? The more we study animal mechanics, either in their physiological or pathological application, the more can we appreciate the truism that force is never lost. If it is not permitted to act for good, it must be productive of evil; if it is not exerted towards the legitimate fulfilment of a normal act, it must inevitably exercise a corresponding pressure in an abnormal direction. Whenever I see in the post-mortem room an ordinary specimen of dilated kidney, tortuous ureter, or sacculated bladder, associated with an enlarged prostate, or a stricture, the expression "misdirected force" almost involuntarily escapes from me.

Such considerations as these have long led me to believe that our treatment of prostatic stricture—or by whatever name we know it—commences, as a rule, far too late; we delay until the bladder shows, by the formation of a pouch, or a saccule, behind the prostate, the first bad influence of back-pressure before we seek to rectify it.

I have endeavoured to prove how much good may be done by the adoption of judicious mechanical treatment on the appearance of indications that the prostate is commencing to obstruct micturition, and I

have founded my suggestion upon a condition which may be seen illustrated in any museum—viz., one in which, though the gland has become large, obstruction has not been known to occur. An extended adoption of this practice has convinced me that the pressing symptoms connected with an enlarging prostate may be kept in abeyance by the timely employment of those principles of treatment which are generally recognised as being applicable to any tubes within the body which are threatened with occlusion, and are within our reach.

In the more advanced forms of prostatic enlargement, where the bladder has been converted into a receptacle little better than a chronic abscess in which urine stagnates, surgery has done much to afford relief.

When the comfort that catheterism is capable of affording has ceased to be effectual, other plans of establishing a drain for the urine are at our disposal. It is not necessary that I should discuss the various means of effecting this; let me, however, say a few words in reference to two which have more recently come under notice: these are—first, incision into the bladder from the perineum; and, secondly, paracentesis through the enlarged gland.

For the purpose of securing a more or less permanent channel for the escape of urine from the bladder, other than by the urethra, I must admit that, following the practice of Syme, and to some extent of Edward Cock, I have a decided preference for an incision through the perineum, on the two-fold ground

of safety and comfort. We have had numerous examples of the great benefit that cystotomy is capable of affording for bladder affections dependent on a large prostate—none perhaps more striking than the case narrated by Mr. Lund, on the memorable occasion of the meeting in London of the International Medical Congress. The paper closes with this observation:—"I have thus placed on record this case, unique in its character, and interesting and encouraging in its results, with the hope that should a similar case occur to any surgeon now present, he will not hesitate to give his patient the chance of benefit from a course of procedure so simple in its nature, and so likely to be followed by temporary, if not permanent, benefit."*

I may be permitted here to submit to your notice a method of puncturing the bladder through the enlarged prostate which has afforded very gratifying results. It consists in passing the trocar through the gland, and retaining it in the perineum, so as to afford a permanent as well as a convenient drain for the urine. I should have had more diffidence in commending this operation to your notice had it not received the approval of our distinguished Associate, Professor Gross, whose contributions to the Surgery of the Urinary Organs are held in deservedly high repute on both sides of the Atlantic.

Though the primary object of cystotomy, as usually practised, is merely to place the bladder at rest by providing a continuous drain for the urine as

* *Trans. International Medical Congress*, vol. ii.

well as the products of cystitis, it occurred to me, as it had already done to others, that it would be possible to extend this proceeding, with the view of removing those barriers to micturition which the hypertrophied gland so frequently presents.

It was to meet conditions such as these that Mercier introduced and practised division of the prostatic bar by means of a cutting instrument introduced along the urethra. This plan, though admirable in its conception, was open to the objection that in its execution it was necessarily uncertain, there being no means of surely ascertaining that the section was confined to the obstruction to be removed. On carefully considering the position of matters, as well as the proposals that had been made, it appeared to me more reasonable to attempt to divide the prostatic obstruction at the neck of the bladder from an opening made into the membranous urethra, than by means of instruments which had to traverse the whole length of the canal. I have recently brought under notice a case* in which I thought it desirable to explore the prostatic urethra from an opening made in the perineum, and through which I was enabled to divide with precision a prostatic barrier. The division of this portion of the gland was followed by complete restoration of the power of micturition, and has so far proved of permanent advantage.

The proceeding which I have thus put into practice seems first to have suggested itself to Mr. Guthrie, but I cannot find that he ever employed it. That it is

* *British Medical Journal*, June 9th, 1883.

not identical with the somewhat extensive incision of the prostate as for lateral lithotomy which was practised by Sir William Blizard is at once obvious. Its aim is to divide the obstruction—and the obstruction alone—by an opening so planned as not to expose the patient to undue risk ; whilst, at the same time, it is capable of affording the greatest amount of room for manipulation by an extension of the incision, should this be found to be necessary.

I need hardly observe that a proceeding of this kind should be undertaken before the bladder has passed into a condition of confirmed and irremediable atrophy ; otherwise, though we may succeed in removing an obstacle to the introduction of the catheter, our prospect of restoring the power of micturition will be as hopeless as it has proved to be under somewhat similar circumstances where the operation of lithotomy has been undertaken.

It is impossible to avoid the conclusion, from their examination after death, that many atonied bladders might have been prevented becoming so by the timely removal of the obstruction by which a condition of permanent paralysis was induced and maintained.

The operative treatment of the enlarged prostate, when it obstructs micturition to a degree that cannot be met by judicious catheterism, is yet, I believe, open to considerable improvement.

Though the literature relating to either complete or partial excision of the prostate is very limited, there is much in it of promise. In one case, where I extirpated the whole gland for malignant disease, the

benefit that followed far exceeded my expectations. It was that of a middle-aged man who, by reason of a carcinomatous prostate, was threatened with a speedy and painful death. I cut down upon the gland in the median line, and succeeded in enucleating it tolerably cleanly with my finger. I saw this patient eight months afterwards in very fair health, and quite able to go about his business. So far he has enjoyed an immunity from the symptoms which induced me to perform this operation, and though his disease is a malignant one, we have every reason to be content with the results obtained.

Then we have numerous examples where considerable masses of the prostate have been removed with very great advantage in the course of operations on the bladder. Amongst these I would specially mention an important case by Mr. Bickersteth*; and, more recently, another by Dr. John Ashhurst, of Philadelphia, in which the whole of an enlarged third lobe was successfully removed.

Cases such as these seem to favour the hope that operative surgery will be found capable of affording more relief to exceptional instances of this kind, and of extending to the large prostate the treatment which in some degree is applicable to other deep-seated growths.

Passing to the urethra, I would again take the opportunity of adverting to the value of Otis's work in regard to the dimensions and dilatibility of this canal; if he had done no more than contribute to the im-

* *Trans. Royal Med. Chir. Society*, 1832.

provement of lithotrity—and this cannot be questioned—we should still be largely in his debt. I cannot, however, follow him in his views relating to the performance of internal urethrotomy as a means of treating stricture of the urethra. My impression is that this operation is losing instead of gaining ground in the opinion of many who have ample opportunities of judging fairly of its merits. That it is an operation fitted for the treatment of stricture in its early stage is a conclusion I am disposed to take exception to, on the ground that it is neither necessary nor safe as compared with other methods. I believe that in its early stage, stricture may be successfully combated by the employment of thorough cleanliness combined with the judicious use of dilatation, as we are accustomed to practise it in this country.

If internal urethrotomy gave a greater immunity than other operations from a recurrence of stricture, or did away with the necessity for subsequent mechanical dilatation, then, perhaps, with the view of avoiding other risks to which all persons suffering from stricture are liable, I might feel more disposed to employ it. But as such is not the case, and the risk attending its performance is not inconsiderable, I cannot concede the importance which is claimed for it by its more ardent admirers. That internal urethrotomy in some cases is a necessity—as by it we are enabled to render amenable to treatment a stricture heretofore intractable—I am willing to admit, but to recommend it as capable of effecting a permanent cure is quite another thing.

The treatment of impassable stricture of the urethra has received an important addition by the practise which Mr. Wheelhouse has introduced, the great credit of which he seems desirous rather of sharing with his surgical colleagues than of appropriating to himself, as I see he always refers to it as the "Leeds operation." Like other conditions which may be spoken of as relative to something else, rather than as fixed or defined, the impassable stricture is, I believe, gradually becoming rarer, a circumstance which is largely due to the great improvement that has taken place in the construction of instruments specially adapted to their treatment, amongst which I may mention the filiform bougies and the tunneled instruments of Gouley, of New York. For the purpose intended, I do not think there is any proceeding equal to that which Mr. Wheelhouse has introduced, and I have no hesitation in including it amongst the improvements to which I am now referring.

Permit me, without apology, in this mechanical age, where invention after invention for the treatment of stricture comes upon us with marvellous rapidity, to claim a moment's consideration for what Mr. Savory has called the medical aspect of this question. We all know what irritation is: there is such a thing as irritation of a stricture, either by what passes through it naturally or is introduced to correct it. Let us not disregard, as a principle of our treatment, the importance of securing for the urethra that physiological rest of which the late Mr. Hilton wrote so well.

The question may here very properly be asked

whether, in our search for novelties as improvements in treatment, we have discovered any new diseases, the better management of which, by reason of our recent acquaintance with them, we may in all fairness leave to our descendants to determine. The admirable Bradshaw Address of Sir James Paget will no doubt have the effect of quickening our perceptions in this direction.

Though I cannot point to any discoveries of this kind as affecting the region which is now occupying our attention, I may note one gratifying result of extended clinical and pathological investigation: I refer to the juster assignment of symptoms to the causes producing them—symptoms which not very long ago were looked upon as constituting independent diseases. But if we have not discovered any new diseases, we must remember that varying circumstances may at one time add intensity to some disorders and considerably modify the progress of others. I have a strong impression that the times through which we are passing, characterised as they are by the production of great and continuous nerve-tension, have brought into prominence a state of brain-strain which is apt to show itself in any organ which may happen to be deranged or is overtaxed.

A recent author seemed rather to conclude that tension of this kind was most injuriously felt and shown by our American cousin, whilst the Britisher, for some reason or other, was less influenced in this manner. Whether this be so or not I am not prepared to decide, but I am disposed to believe that

purely nervous affections—affections associated, as far as we can determine, with no obvious structural alteration—are more common than they used to be. That they occasion much distress, and cause persons who suffer from them to be unduly apprehensive, will be generally admitted. Nay, further, by their mimicry of more certain diseases, they induce a condition of anxiety which is often intolerable. It is well, too, to bear in mind that the interpretation of symptoms, as also their prevention and amendment, are frequently to a large extent dependent on a recognition of the possible existence in a patient of exaggerated nerve-tension.

Before an audience of this kind it would be presumptuous on my part further to indicate in detail the many improvements that have taken place in the treatment of the surgical disorders of the urinary organs; further, where there have been so many contributors toward this progress it would be invidious for me to particularise.

Let me, however, in common fairness to those to whom we are much indebted, say one word in reference to the advance that has been steadily made in the construction of the means and appliances used for these purposes.

I can remember some instruments which five and twenty years ago, or even less, were regarded as improvements, but have now passed into obscurity or to the shelves of the museum. In no department of applied mechanics has greater perfection been obtained than in that of the surgical mechanician,

and nowhere is this better illustrated than in the instruments employed in the treatment of urinary diseases.

It seems almost ungenerous, after referring to several proceedings of an operative kind, the doing of which entail pain and involve risk for the sake of advantages to follow, that I should allow to pass unnoticed the work of those who have removed the one and lessened the other. In chloroform and anæsthetics we have a priceless boon, without which surgery would long ago have been at a stand-still, and many persons now living in comfort and enjoyment would ere this have ceased to exist. I am not old enough to remember the pre-anæsthetic age, and, therefore, am unable to draw a contrast which will be a vivid one to some of the 'elder brethren' I am addressing to-day. I am reminded, however, of an incident bearing upon such a contrast, which with your permission I will briefly relate.

Some two years ago, a sea captain, a patient of mine, and by no means a bad amateur doctor, on returning from sea, told me somewhat gleefully that he had successfully performed an amputation. Whilst his ship was at Ruruta, an uncivilised island in the South Pacific, a poor native got his arm entangled in a sugar-crushing machine. As there was no doctor on the island, my friend the captain was summoned, and at once saw the necessity for removing the shattered fragments of the limb. The shrieks and struggles of the powerful aboriginal were most fearful. Recognising the necessity for taking steps to

save the man's life, the captain hurried off to his ship, and returned with the necessary implements, together with a quart of the newest and most potent rum. In the absence of chloroform he induced his patient to swallow this fiery compound, wine-glassful after wine-glassful, until intoxication was induced, and subsequently profound alcoholic insensibility. Then the tourniquet was applied, and amputation successfully performed. Recovery rapidly took place. So pleased was the savage with the effects of anæsthesia that he subsequently offered to let my friend cut off some of his toes provided that the process of inducing insensibility was repeated.

Next in importance to chloroform and anæsthetics are those means which have been recently promulgated for diminishing some of the greater risks contingent upon wounds and surgical operations. About antiseptics, I desire to speak in no uncertain terms. Though our views may not be unanimous, though some of us may be sceptical about the import of germs and of sprays and other details, can we doubt that when the surgical historian of the nineteenth century has to recount the men as well as the measures that have favourably influenced the progress our art has made, the name of Lister will occupy a conspicuous place?

I have now done: it has not been my ambition to hold up to you a golden calf: to attempt to dress it in flowers of rhetoric and to ask you to worship it. I have rather endeavoured to remind you of some of the directions in which surgery is now travelling and

to estimate in a measure the pace at which it is going. It is impossible to engage in a work of this kind without a full conviction that though our art is an imperfect one, it is distinctly a progressive one. In the course of your visit to this, which has been aptly referred to as the second city of the Empire, you will find almost all the arts and sciences laid under contribution for the development of commercial enterprise. And the activity displayed in the promotion of trade and commerce will probably suggest the enquiry whether *we* are equally progressive, whether we are in correspondence with the times in which we live.

There need, however, be no hesitation in asserting that, whether we are regarded as preventers of disease or as practitioners of medicine or of surgery, every one of us in his daily practice is constantly demonstrating that year by year something additional is contributed by our profession to the comfort and the life of man.

By the same Author.

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